

1. (Three Times Amended) A vibration wave driving apparatus comprising:

a vibration member formed by an elastic member having an electro-mechanical energy conversion element fixed thereto, and having a through-hole extending through a central portion thereof;

a support member fixed to said vibration member;

a rotary member in press contact with said vibration member, and having a through-hole extending through a central portion thereof;

an output shaft extending through the through-hole of said vibration member and the through-hole of said rotary member, and rotatable with said rotary member;

a case packaging said vibration member and said rotary member therein, and fixing one end portion of said support member, thereby supporting said vibration member; and

a plurality of bearings provided in said case, said plurality of bearings rotatably supporting said output shaft,

wherein said output shaft provides a bearing surface that locates a radial position of said vibration member at an axial position within the through-hole of said vibration member corresponding to a node of a vibration generated in said vibration member.

2. (Twice Amended) A vibration wave driving apparatus according to Claim 1, wherein at least a portion of the through-hole of said vibration member

provides a bearing surface at the axial position corresponding to a node of the vibration generated in said vibration member.

3. (Amended) A vibration wave driving apparatus according to Claim 1, further comprising at least one bearing disposed in the through-hole of said vibration member, between said vibration member and said output shaft, each said at least one bearing being provided at a respective node of a vibration generated in said vibration member.

4. (Amended) A vibration wave driving apparatus according to Claim 3, wherein said at least one bearing is a sliding bearing.

5. (Amended) A vibration wave driving apparatus according to Claim 4, wherein at least one of the bearing surface of said output shaft and a bearing surface of said sliding bearing is formed of resin.

7. A vibration wave driving apparatus according to Claim 1, wherein at least one of the plurality of bearings provided in said case is a sliding bearing.

8. (Amended) A vibration wave driving apparatus according to Claim 7, wherein at least one of the bearing surface of said output shaft and a bearing surface of said sliding bearing is formed of resin.

9. (Three Times Amended) A vibration wave driving apparatus according to Claim 1, further comprising at least one bearing disposed in the through-hole of said rotary member, between said rotary member and said output shaft.

--18. (New) A vibration wave driving apparatus comprising:

a vibration member formed by a plurality of elastic members each of which has a through-hole at a center portion thereof and an electro-mechanical energy conversion element having a through-hole at a center portion thereof and fixed between said plurality of elastic members;

a supporting member fixed to said vibration member;

a plurality of rotary members in press contact with said elastic member, each of said plurality of rotary members having a through-hole at a center portion thereof;

an output shaft extending through the through-hole of said vibration member and the through-hole of each of said plurality of rotary members, and rotatable with said plurality of rotary members;

a case packaging said vibration member and said plurality of rotary members, and fixing one end portion of said supporting member; and

a plurality of bearings provided in said case, and through which said output shaft is inserted,

wherein said output shaft provides a bearing surface that locates a radial position of said vibration member at an axial position within the through-hole of said vibration member corresponding to a node of a vibration generated in said vibration member.

19. (New) A vibration wave driving apparatus according to Claim 18, further comprising at least one bearing disposed in the through-hole of said vibration member, between said vibration member and said output shaft, each said at least one bearing being provided at a respective node of a vibration generated in said vibration member.

20. (New) A vibration wave driving apparatus according to Claim 19, wherein said at least one bearing is a sliding bearing.

21. (New) A vibration wave driving apparatus according to Claim 20, wherein at least one of the bearing surface of said output shaft and a bearing surface of said sliding bearing is formed of resin.

22. (New) A vibration wave driving apparatus according to Claim 18, wherein at least one of the plurality of bearings provided in said case is a sliding bearing.

23. (New) A vibration wave driving apparatus according to Claim 22, wherein at least one of the bearing surface of said output shaft and a bearing surface of said sliding bearing is formed of resin.

24. (New) A vibration wave driving apparatus according to Claim 18, further comprising at least one bearing disposed in the through-hole of at least one

rotary member of said plurality of rotary members, between said at least one rotary member and said output shaft. --

REMARKS

The claims now pending in the application are Claims 1 to 5, 7 to 10 and 18 to 24, the independent claims being Claims 1 and 18. Claims 1 to 5 and 8 have been amended herein. Claims 18 to 24 are newly presented.

In the Official Action dated October 23, 2002, the drawings were objected to on formal grounds. Claim 1 was rejected under 35 U.S.C. 112, second paragraph, as indefinite. Claims 1 to 3 were rejected under 35 U.S.C. § 103(a), as unpatentable over U.S. Patent No. 6,140,741 (Tamai). Reconsideration and withdrawal of the objection and rejections respectfully are requested in view of the following remarks.

Initially, Applicant gratefully acknowledges the Examiner's indication that the application contains allowable subject matter, and that Claims 5, 7 and 9 are allowable over the prior art of record.

The rejections of the claims over the cited art respectfully are traversed. Nevertheless, without conceding the propriety of the rejections, Claims 1 to 5, 8 and 9 have been amended to recite even more clearly various novel features of the present invention, with particular attention to the Examiner's comments. Newly presented Claims 18 to 24 have been added to provide Applicant with an additional scope of protection commensurate with the disclosure. Support for the proposed amendments may be found in the original application. No new matter has been added.